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NATIONAL WEATHER SERVICE INSTRUCTION 10-515
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Operations and Services
Public Weather Services, NWSPD 10-5

WFO NON-PRECIPITATION WEATHER PRODUCTS SPECIFICATION

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OPR: OS22 (M. Tew) **Certified by:** OS22 (G. Austin)
Type of Issuance: Emergency.

SUMMARY OF REVISIONS: This directive supercedes NWSI 10-515, "WFO Non-Precipitation Weather Products Specification," dated December 2, 2003. This directive removes the Valid Time Event Code string from product formats and examples.

signed 11/21/03

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WFO Non-Precipitation Weather Products Specification

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1. Introduction. This procedural directive describes the non-precipitation weather products issued by National Weather Service Weather Forecast Offices (WFOs), guidelines associated with these products, and detailed content and format for each product type.

2. Multitiered Concept. The National Weather Service (NWS) non-precipitation weather warning program will use, when appropriate, the multitiered concept to increase public awareness and promote a proper response to the impending hazardous non-precipitation weather event. Generically, the multitiered concept is:

a. **Outlook** – An outlook is used to indicate that a hazardous non-precipitation weather event may develop. It is intended to provide information to those who need considerable lead time to prepare for the event.

b. **Watch** – A watch is used when the risk of a hazardous non-precipitation weather event has increased, but its occurrence, location, and/or timing is still uncertain. It is intended to provide enough lead time so those who need to set their plans in motion can do so.

c. **Warning/Advisory** – These products are issued when a hazardous non-precipitation weather event is occurring, is imminent, or has a very high probability of occurrence. A warning is used for conditions posing a threat to life or property. Advisories are for less serious conditions that cause significant inconvenience and, if caution is not exercised, could lead to situations that may threaten life and/or property.

To properly apply the multitiered concept, it is important to have agreement between the forecast staff and other affected WFOs to reach a forecast consensus. This will reduce the on-again, off-again syndrome and geographical/time discontinuities, especially for the longer duration products like outlooks and watches. Proper coordination will enable the NWS to speak with one voice when alerting users to the potential for such an event.

3. Non-Precipitation Outlooks (product category SPS).

3.1 Mission Connection. Non-precipitation outlooks provide our customers and partners three-to-seven day advance notice of a hazardous non-precipitation weather event which has the potential to threaten life or property. The primary goal of this product is to provide information to those who need considerable lead time to prepare for the event.

3.2 Issuance Guidelines.

3.2.1 Creation Software. WFOs should use the AWIPS Watch/Warning/Advisory (WWA) software or other text editors to create and issue non-precipitation outlooks.

3.2.2 Issuance Criteria. WFOs should issue non-precipitation outlooks when conditions are

favorable for a significant hazardous non-precipitation weather event to develop over part or all of the forecast area in the three to seven day forecast period, or beyond the point normally covered by a watch. Non-precipitation outlooks are issued when there is a 30 percent or greater chance of a hazardous non-precipitation weather event exceeding local warning criteria.

3.2.2.1 Non-Precipitation Outlook Products. WFOs may issue the following non-precipitation outlook products:

Non-Precipitation Outlook Product Name or MND	Description
Excessive Heat Outlook	Potential for an excessive heat event to exceed local Excessive Heat Warning criteria in the next three to seven days.
Freeze Outlook	Potential for a freeze event to exceed Freeze Warning criteria in the next three to seven days during the locally defined growing season.
High Wind Outlook	Potential for a high wind event to exceed High Wind Warning criteria in the next three to seven days.

Table 1. Non-precipitation outlook product table.

3.2.3 Issuance Time. The non-precipitation outlook is an event-driven product. WFOs should issue the initial outlook when the issuance criteria is met. Subsequent outlook updates should occur at least once every 12 hours until a non-precipitation watch is issued or the weather threat has diminished.

3.2.4 Valid Time. A non-precipitation outlook is valid for the 3-to-7 day forecast period defined in the outlook headline.

3.2.5 Product Expiration Time. The expiration time is generally 12 hours after the issuance time. The product expiration time is placed in the UGC line.

3.2.6 Event Expiration Time. The event expiration time is described in the outlook headline and is set for the 3-to-7 day forecast time frame.

3.3 Technical Description. Non-precipitation outlooks should follow the format and content described in this section.

3.3.1 Universal Geographic Code Type. Non-precipitation outlooks will use the (Z) form of the UGC.

3.3.2 Mass News Disseminator Broadcast Instruction Line. Not applicable.

3.3.3 Mass News Disseminator Product Type Line. The MND line will include the one of the following product names:

a. "EXCESSIVE HEAT OUTLOOK"
b. "FREEZE OUTLOOK"
c. "HIGH WIND OUTLOOK"

WFOs may denote the area covered by the outlook, such as "HIGH WIND OUTLOOK FOR WEST CENTRAL TEXAS."

3.3.4 Content. The content of a non-precipitation outlook will contain an overview headline and a meteorological discussion.

3.3.4.1 Overview Headline. Include a descriptive headline describing the hazardous weather threat (e.g., excessive heat, high wind, freeze, etc.), areas affected and expected time of development. The overview headline will begin and end with three periods "..."

Examples:

...EXCESSIVE HEAT IS POSSIBLE FOR THE UPPER MIDWEST ON SATURDAY AND SUNDAY...
...POTENTIAL FOR A HARD FREEZE IN CENTRAL FLORIDA WEDNESDAY MORNING ...

3.3.4.2 Meteorological Discussion. A general weather synopsis describing the upcoming hazardous weather event. The discussion may include major weather features (development and path of storm systems and cold fronts), their possible impact and the uncertainty involved. The prime objective of the outlook is to inform users of the potential of the upcoming hazardous weather event. Here are some additional guidelines:

a. Include a general time and location of the hazardous weather event.

b. Outlooks should contain general or qualitative descriptions of the expected weather. Definitive, quantitative and specific wording should be reserved for warning situations.

c. Avoid technical terms. Due to the long-term time frame, describe the inherent uncertainty of the event or storm path.

e. When applicable, use HPC text and graphic products as guidance.

3.3.5 Format.

Product Format	Description of Entry
WWaaii cccc ddhhmm	*(WMO Heading)*
SPSxxx	*(AWIPS ID)*
non-precipitation OUTLOOK	*(Product Name* or *MND)*
NATIONAL WEATHER SERVICE city state	*(Issuing Office)*
time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
stZ001-005>015-ddhhmm-	(*UGC: **Z** & Product expiration time)*
zone-zone-zone	*(Zone Names)*
INCLUDING THE CITIES OF city...city...city	*(City Names - Optional)*
time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
...<Overview headline statement>...	
<Meteorological discussion of developing non-precipitation event, potential impact, inherent uncertainty of event>	*(One to two paragraphs)*
<call-to-action (cta) statements>	*(Last paragraph, brief)*
$$	*(UGC Delimiter)*
Name/Initials/Forecaster ID	*(Optional)*

Figure 1. Generic format for a non-precipitation outlook.

3.4 Updates, Amendments, and Corrections. Non-precipitation outlooks are updated at least once every 12 hours until a watch is issued or the weather threat diminishes. If the weather threat diminishes, do not issue a cancellation statement for an outlook. Issue an SPS highlighting the reason the threat diminished. WFOs will issue correction statements for format or grammatical errors as required. To reduce format or grammatical errors, forecasters should proofread the product before transmission.

4. Non-Precipitation Watches (product category NPW).

4.1 Mission Connection. Non-precipitation watches provide our customers and partners 12-to-48 hour advance notice of hazardous non-precipitation weather events which have the potential to threaten life or property. The primary goal of this product is to provide enough lead time for those who need to set their plans in motion.

4.2 Issuance Guidelines.

4.2.1 Creation Software. WFOs should use the AWIPS WWA software to create and issue non-precipitation watches.

4.2.2 Issuance Criteria. WFOs will issue a non-precipitation watch when conditions are favorable for a hazardous non-precipitation weather event to develop over part or all of the forecast area, but the occurrence is uncertain. WFOs should issue a non-precipitation watch for the second, third, or occasionally fourth forecast periods, when there is a 50 percent or greater chance of a hazardous non-precipitation weather event meeting or exceeding local warning criteria.

4.2.2.1 Non-Precipitation Watch Products. WFOs will issue the following non-precipitation watch products:

Non-Precipitation Watch Product Name	Issuance Criteria
Excessive Heat Watch	Conditions are favorable for an excessive heat event to meet or exceed local Excessive Heat Warning criteria in the next 12 to 48 hours.
Freeze Watch	Conditions are favorable for a freeze event to meet or exceed Freeze Warning criteria in the next 12 to 48 hours during the locally defined growing season.
High Wind Watch	Conditions are favorable for a high wind event to meet or exceed High Wind Warning criteria in the next 12 to 48 hours.
Inland Hurricane Wind Watch	Conditions are favorable for a tropical cyclone to spread hurricane force winds inland in the next 12 to 24 hours.
Inland Tropical Storm Wind Watch	Conditions are favorable for a tropical cyclone to spread tropical storm force winds inland in the next 12 to 24 hours.

Table 2. Non-precipitation watch product table.

4.2.3 Issuance Time. The non-precipitation watch is an event-driven product. WFOs should issue the initial watch when the issuance criterion is met. Subsequent updates are issued at least once every 12 hours until a warning or advisory is issued or the watch is cancelled. The exception is the Inland Hurricane/Tropical Storm Wind Watch products where subsequent updates are issued under the HLS product category (see NWSI 10-601, Section 6 for more details).

4.2.4 Valid Time. A non-precipitation watch is valid for the 12 to 48 hour forecast time defined in the watch headline.

4.2.5 Product Expiration Time. The product expiration time is generally 12 hours after the issuance time. The product expiration time is placed in the UGC line.

4.2.6 Event Expiration Time. The event expiration time is when the hazardous event is expected to end. The event expiration time is described in the watch headline (e.g., FREEZE WATCH IN EFFECT FOR MONDAY MORNING).

4.3 Technical Description. Non-precipitation watches will follow the format and content described in this section.

4.3.1 Universal Geographic Code Type. Non-precipitation watches will use the (Z) form of the UGC.

4.3.2 Mass News Disseminator Broadcast Instruction Line. Not applicable.

4.3.3 Mass News Disseminator Product Type Line. The non-precipitation watch MND line is "URGENT - WEATHER MESSAGE."

4.3.4 Non-Precipitation Watch Content. The content of a non-precipitation watch may contain an overview section, but will include segmented forecast information.

4.3.4.1 Overview Section. The non-precipitation watch overview section is optional. If included, it should contain at least one of the following items:

a. Overview Headline - a general headline statement that summarizes the hazardous weather threat, area affected and expected time of development. The overview headline will begin and end with three periods "..."

   Examples:

   ...ANOTHER HIGH WIND EVENT TO IMPACT THE EAST SIDE OF THE SIERRA NEVADA MOUNTAINS ON MONDAY AND TUESDAY...
   ...A SIGNIFICANT HEAT WAVE MAY BE HEADED OUR WAY THIS WEEKEND...

b. Overview - a brief, non-technical description of the developing non-precipitation event. The description may include the location and movement of large scale weather features (e.g., fronts, low pressure systems). The first line of this descriptive information will be preceded by a period ".".

4.3.4.2 Segmented Forecast Information. Each segment of the non-precipitation watch will include a watch headline followed by a descriptive text describing why the watch was issued. Each segment describes a specific hazardous non-precipitation weather event.

a. Watch Headline. The watch headline will include one of the non-precipitation watch products and a general time phrase to describe when the watch is in effect for. The watch headline will also begin and end with three periods "..."

Examples:

...HIGH WIND WATCH IN EFFECT SUNDAY NIGHT AND MONDAY...

...EXCESSIVE HEAT WATCH IN EFFECT WEDNESDAY MORNING THROUGH THURSDAY MORNING...

b. Watch descriptive Text. This section will provide the following watch information:

(1) National Weather Service attribution line. For the **initial** watch, include the following phrase to begin the text of a watch:

THE NATIONAL WEATHER SERVICE IN [WFO NAME or LOCATION] HAS ISSUED AN/A (e.g., EXCESSIVE HEAT/FREEZE/HIGH WIND) WATCH.

The attribution line is optional for subsequent issuances.

(2) Reason watch was issued.

(3) Generalized quantitative wind speed amounts or Heat Index values, etc., based upon local warning criteria (e.g., wind speeds greater than 40 mph possible, heat index values greater than 110F possible).

(4) Explanation of a watch and uncertainty involved. Include the following phrase to define a non-precipitation watch:

REMEMBER...AN/A (e.g., EXCESSIVE HEAT/FREEZE/HIGH WIND) WATCH MEANS CONDITIONS ARE FAVORABLE FOR A HAZARDOUS (EXCESSIVE HEAT/FREEZE/HIGH WIND) EVENT IN AND CLOSE TO THE WATCH AREA.

(5) Brief potential impact or Call To Action (CTA) statements. CTAs can be effective in reminding people what actions to take in preparing themselves for the potential hazardous non-precipitation weather event.

c. Order of Segments. Non-precipitation watches are usually placed last in the order of segments. This order was designed to place the most important and/or time

sensitive information near the beginning of the message. The order of segments is:

(1) Cancellation
(2) Warnings
(3) Advisories
(4) Watches

Note: A watch and warning or watch and advisory for separate hazardous events should be placed in the same segment, when the geographical area of the two events remain constant.

4.3.5 Format.

Product Format	Description of Entry
WWaaii cccc ddhhmm	*(WMO Heading)*
NPWxxx	*(AWIPS ID)*
URGENT - WEATHER MESSAGE	*(Product Name* or *MND)*
NATIONAL WEATHER SERVICE city state	*(Issuing Office)*
time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
...<Overview headline statement>...	*(Optional)*
.<General non-precipitation weather synopsis>	*(Optional - one to three paragraphs)*
stZ001-005>015-ddhhmm-	(*UGC: **Z** & expiration time)*
zone-zone-zone-	*(Zone Names)*
INCLUDING THE CITIES OF city...city...city.	*(City Names - Optional)*
time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
...WATCH HEADLINE...	
<Descriptive Text>	*(Two to three paragraphs)*
{Includes the following information: 1. NWS attribution line (*Optional after initial issuance*) 2. Why watch was issued 3. Potential Impact 4. Definition of a watch with uncertainty 5. Call to Action statements}	
$$	*(UGC Delimiter)*
Name/Initials/Forecaster ID	*(Optional after last segment)*

Figure 2. Generic format for a non-precipitation watch.

4.4 Updates, Amendments, Cancellations, and Corrections. WFOs will update non-precipitation watches at least once every 12 hours, or when there is a change in timing, areal extent, or expected conditions. Update Inland Hurricane/Tropical Storm Wind Watch products under the HLS product category (see NWSI 10-601, Section 6 for more details).

Non-precipitation watches are either upgraded into warnings or advisories, or canceled.

WFOs will issue a NPW to cancel a watch when the forecaster believes the threat of hazardous non-precipitation weather will not develop.

WFOs will issue correction statements for format or grammatical errors as required. To reduce format or grammatical errors, forecasters should proofread the product before transmission.

5. Non-Precipitation Weather Warnings (product category NPW).

5.1 Mission Connection. Non-Precipitation weather warnings provide our customers and partners advance notice of hazardous non-precipitation weather events that threaten life or property.

5.2 Issuance Guidelines.

5.2.1 Creation Software. WFOs should use the AWIPS WWA software to create and issue non-precipitation weather warnings.

5.2.2 Issuance Criteria. WFOs will issue non-precipitation weather warnings when hazardous non-precipitation weather is imminent, occurring or highly likely over part or all of the forecast area. WFOs should issue a non-precipitation weather warning for the first, second, or occasionally third forecast periods, when there is an 80 percent or greater chance of a hazardous non-precipitation weather event meeting or exceeding local warning criteria.

5.2.2.1 Non-Precipitation Weather Warning Products. WFOs will issue the following non-precipitation weather warning products:

Warning Product Name	Issuance Criteria
Dust Storm Warning	Widespread or localized blowing dust reducing visibilities to 1/4 mile or less. Sustained winds of 25 mph or greater are usually required.
Excessive Heat Warning	Heat Index values forecast to meet or exceed locally defined warning criteria for at least two days (Typical value: 1) Maximum daytime HI ≥105°F north to110°F south 2) Minimum nighttime lows ≥75°F).
Freeze Warning	Minimum shelter temperature is forecast to be 32°F or less during the locally defined growing season.
High Wind Warning	Wind speeds forecast to meet or exceed locally defined warning criteria. (Typical values are sustained wind speeds of 40 mph or greater lasting for 1 hour or longer, or winds of 58 mph or greater for any duration).

Inland Hurricane Wind Warning	Tropical cyclone forecast to spread hurricane force winds inland.
Inland Tropical Storm Wind Warning	Tropical cyclone forecast to spread tropical storm force winds inland.

Table 3. Non-Precipitation Warning product table.

5.2.3 Issuance Time. A non-precipitation weather warning is an event-driven product and is initially issued when a hazardous non-precipitation weather event is expected to meet or exceed local warning criteria. WFOs should issue updated warnings at least once every six to eight hours until the event ends or is canceled. The exception is the Inland Hurricane/Tropical Storm Wind Warning products where subsequent updates are issued under the HLS product category (see NWSI 10-601, Section 6 for more details).

5.2.4 Valid Time. A non-precipitation weather warning is valid from the time of release to the 12 to 36 hour forecast expiration time defined in the warning headline.

5.2.5 Product Expiration Time. The product expiration time is generally 6 to 8 hours after the issuance time and should coincide with the next expected update or when the event is forecast to end. The product expiration time is placed in the UGC line.

5.2.6 Event Expiration Time. The event expiration time is when the hazardous non-precipitation weather event is expected to end. The event expiration time can match the product expiration time if the warning is in effect for eight hours or less. The event expiration time is placed in the warning headline (e.g., FREEZE WARNING IN EFFECT UNTIL 900 AM EST MONDAY).

5.3 Technical Description. Non-precipitation weather warnings will follow the format and content described in this section.

5.3.1 Universal Geographic Code Type. Non-precipitation weather warnings will use the (Z) form of the UGC.

5.3.2 Mass News Disseminator Broadcast Instruction Line. Not applicable.

5.3.3 Mass News Disseminator Product Type Line. The non-precipitation weather warning MND line is "URGENT-WEATHER MESSAGE."

5.3.4 Content. The content of a non-precipitation weather warning may contain an overview section, but will include segmented forecast information.

5.3.4.1 Overview Section. The non-precipitation weather warning overview section is optional. If included, it should contain at least one of the following items:

a. Overview Headline - a general headline statement that summarizes the hazardous weather threat, area affected and expected time of development. The overview headline will begin and end with three periods "...".

Examples:

...A MAJOR HIGH WIND EVENT WILL IMPACT THE PACIFIC NORTHWEST SATURDAY...
...EXCESSIVE HEAT WARNINGS ISSUED FOR CENTRAL PENNSYLVANIA TODAY...

b. Overview - a brief, non-technical description of the developing non-precipitation event. The description may include the location and movement of large scale weather features (e.g., fronts, low pressure systems). The first line of this descriptive information will be preceded by a period ".".

5.3.4.2 Segmented Forecast Information. Each segment of a non-precipitation weather warning will include a warning headline followed by a descriptive text describing why the warning was issued. Each segment describes a specific hazardous non-precipitation weather event.

a. Warning Headline. The warning headline will include one of the non-precipitation weather warning products and a specific time phrase to describe when the warning is in effect for. The warning headline will also begin and end with three periods "...".

Examples:

...HIGH WIND WARNING IN EFFECT UNTIL 530 PM PST MONDAY...

...EXCESSIVE HEAT WARNING REMAINS IN EFFECT UNTIL 200 PM THIS AFTERNOON...

b. Warning descriptive Text. This section will include the following warning information:

(1) National Weather Service attribution line. For the **initial** warning, include the following phrase to begin the text of a warning:

THE NATIONAL WEATHER SERVICE IN [WFO NAME or LOCATION] HAS ISSUED AN/A (e.g., EXCESSIVE HEAT/ FREEZE/HIGH WIND) WARNING.

The attribution line is optional for subsequent issuances.

(2) Reason warning was issued. Include non-precipitation weather element(s) prompting the warning.

(3) Quantitative wind speed amounts or Heat Index, etc. (e.g., Northwest winds 35 to 45 mph, Heat Index 110 to115).

(4) Definition of a warning when event has not yet begun. Use the following phrase to define a warning:

REMEMBER...A (HIGH WIND/EXCESSIVE HEAT/DUST STORM, etc.) WARNING MEANS HAZARDOUS WEATHER CONDITIONS ARE IMMINENT OR HIGHLY LIKELY.

(5) Brief CTA statements, safety rules.

c. Order of Segments. Non-precipitation weather warnings are placed second in the order of segments. This order was designed to place the most important and/or time sensitive information near the beginning of the message. The order of segments is:

(1) Cancellation
(2) Warnings
(3) Advisories
(4) Watches

Note: A warning and watch or warning and advisory for separate hazardous events should be placed in the same segment, when the geographical area of the two events remain constant.

5.3.5 Format.

Product Format	Description of Entry
WWaaii cccc ddhhmm	*(WMO Heading)*
NPWxxx	*(AWIPS ID)*
URGENT - WEATHER MESSAGE	*(Product Name* or *MND)*
NATIONAL WEATHER SERVICE city state	*(Issuing Office)*
time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
...<Overview headline statement>...	*(Optional)*
.<General non-precipitation weather synopsis>	*(Optional - one to three paragraphs)*
stZ001-005>015-ddhhmm-	(*UGC: **Z** & expiration time)*
zone-zone-zone-	*(Zone Names)*
INCLUDING THE CITIES OF city...city...city.	*(City Names - Optional)*
time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
...WARNING HEADLINE...	
<Descriptive Text> {Includes the following information: 1. NWS attribution line (*Optional after initial issuance*) 2. Why warning was issued (non-precipitation weather element(s) prompting the warning). 3. Detailed wind speed amounts or Heat Index values, etc. (e.g., Northwest winds 35 to 45 mph, heat indices around 115). 4. Timing of the event (beginning, ending, time of heaviest precipitation or worst conditions, duration). 5. Definition of a warning (before event begins) 6. Potential impact, call to action statement.	*(Two to three paragraphs)*
$$	*(UGC Delimiter)*
Name/Initials/Forecaster ID	*(Optional after last segment)*

Figure 3. Generic format for a non-precipitation weather warning.

5.4 Updates, Amendments, and Corrections. WFOs will update non-precipitation weather warnings at least once every six to eight hours until the event ends or is canceled. The frequent updates will keep our customers and partners informed on the current and short term aspects of the hazardous weather event. Update warnings whenever there is a change in timing, areal

extent, or expected conditions. Update Inland Hurricane/Tropical Storm Wind Warning products under the HLS product category (see NWSI 10-601, Section 6 for more details).

WFOs will issue a NPW to cancel a warning when the forecaster believes the weather threat has diminished before the valid time expires.

WFOs will issue correction statements for format or grammatical errors as required. To reduce format or grammatical errors, forecasters should proofread the product before transmission.

6. Non-Precipitation Weather Advisories (product category NPW).

6.1 Mission Connection. Non-precipitation weather advisories provide our customers and partners advance notice of hazardous non-precipitation weather events which could lead to life-threatening situations if caution is not exercised.

6.2 Issuance Guidelines.

6.2.1 Creation Software. WFOs should use the AWIPS WWA software to create and issue non-precipitation weather advisories.

6.2.2 Issuance Criteria. WFOs will issue non-precipitation weather advisories for hazardous non-precipitation weather events that cause significant inconveniences, and if caution is not exercised, could lead to life-threatening situations over part or all of the forecast area. WFOs should issue non-precipitation weather advisories for the first, second, or occasionally third forecast periods, when there is an 80 percent or greater chance of a hazardous non-precipitation weather event meeting or exceeding local advisory criteria.

6.2.2.1 Non-Precipitation Weather Advisory Products. WFOs should issue the following non-precipitation weather advisory products:

Advisory Product Name	Issuance Criteria
Air Stagnation Advisory	Atmospheric conditions stable enough to cause air pollutants to accumulate in a given area. Criteria developed in conjunction with the local or state EPA and the product issued by their request. *Note: WFOs that have an air stagnation advisory program in cooperation with state and local air quality officials may issue this product under the product category ASA.*
Ashfall Advisory	Ash plume resulting from a volcanic eruption reducing visibility at the ground and in the air. There is no minimum threshold for the issuance of this product.

Blowing Dust Advisory	Widespread or localized blowing dust reducing visibilities to one mile or less, but greater than 1/4 mile. Winds of 25 mph or greater is usually required.
Dense Fog Advisory	Widespread or localized fog reducing visibilities to 1/4 mile or less.
Dense Smoke Advisory	Widespread or localized smoke reducing visibilities to 1/4 mile or less.
Freezing Fog Advisory	Very light ice accumulation from freezing fog.
Frost Advisory	Minimum shelter temperature forecast to be 33 to 36°F during the locally defined growing season, on nights with good radiational cooling conditions (e.g., light winds and clear skies).
Heat Advisory	Heat Index values forecast to meet or exceed locally defined advisory criteria for at least two days (Typical value: 1) Maximum daytime HI ≥100°F north to105°F south 2) Minimum nighttime lows ≥75°F).
Lake Wind Advisory	Sustained wind speeds of 20 to 29 mph (or locally defined) lasting for 1 hour or longer for regions which have a significant user community. The need for this product is locally determined.
Wind Advisory	Sustained wind speeds of 30 to 39 mph lasting for 1 hour or longer or locally defined.

Table 4. Non-precipitation advisory product table.

6.2.3 Issuance Time. Advisories are event-driven products and are initially issued when a hazardous non-precipitation weather event is expected to meet or exceed local advisory criteria. WFOs should issue updated advisories at least once every six to eight hours until the event ends or is canceled.

6.2.4 Valid Time. Advisories are valid from the time of release to the 12 to 36 hour forecast expiration time defined in the watch headline.

6.2.5 Product Expiration Time. The product expiration time is generally 6 to 8 hours after the issuance time and should coincide with the next expected update or when the event is forecast to end. The product expiration time is placed in the UGC line.

6.2.6 Event Expiration Time. The event expiration time is when the hazardous non-precipitation weather event is expected to end. The event expiration time can match the product expiration time if the advisory is in effect for eight hours or less. The event expiration time is placed in the in the advisory headline (e.g., FROST ADVISORY IN EFFECT UNTIL 900 AM EST MONDAY).

6.3 Technical Description. Non-precipitation weather advisories will follow the format and content described in this section.

6.3.1 Universal Geographic Code Type. Non-precipitation weather advisories will use the (Z) form of the UGC.

6.3.2 Mass News Disseminator Broadcast Instruction Line. Not applicable.

6.3.3 Mass News Disseminator Product Type Line. The advisory MND line is "URGENT-WEATHER MESSAGE."

6.3.4 Content. The content of a non-precipitation weather advisory may contain an overview section, but will include segmented forecast information.

6.3.4.1 Overview Section. The advisory overview section is optional. If included, it should contain at least one of the following items:

a. Overview Headline - a general headline statement that summarizes the hazardous weather threat, area affected and estimated time of development. The overview headline will begin and end with three periods "...". For example:

...STRONG GUSTY WINDS WILL IMPACT SOUTHWEST MICHIGAN TODAY...
...DENSE FOG EXPECTED ACROSS PARTS OF NORTHEAST OHIO TONIGHT...

.

b. Overview - a brief, non-technical description of the developing non-precipitation weather event. The description may include the location and movement of large scale weather features (e.g., fronts, low pressure systems). The first line of this descriptive information will be preceded by a period ".".

6.3.4.2 Segmented Forecast Information. Each segment of a non-precipitation weather advisory will include the advisory headline followed by a descriptive text describing why the advisory was issued. Each segment describes a specific hazardous non-precipitation weather event.

a. Advisory Headline. The advisory headline will include one of the non-precipitation weather advisory products and a specific time phrase to describe when the warning is in effect for. The advisory headline will also begin and end with three periods "...".

Examples:

...WIND ADVISORY IN EFFECT UNTIL 1000 PM CDT THIS EVENING...

...DENSE FOG ADVISORY IN EFFECT UNTIL 900 AM PST FRIDAY MORNING...

b. Advisory descriptive Text. This section will include the following advisory information:

(1) National Weather Service attribution line. For the **initial** advisory, include the following phrase to begin the text of the advisory:

THE NATIONAL WEATHER SERVICE IN [WFO NAME or LOCATION] HAS ISSUED A (e.g., HEAT/FROST/WIND) ADVISORY.

The attribution line is optional for subsequent issuances.

(2) Reason advisory was issued. Include non-precipitation weather element(s) prompting the advisory.

(3) Quantitative wind speed amounts or Heat Index values, etc. (e.g., Northwest winds 25 to 35 mph, Heat Index 100 to 105).

(4) Brief call to action statements, safety rules.

c. Order of Segments. Advisories are placed third in the order of segments. This order was designed to place the most important and/or time sensitive information near the beginning of the message. The order of segments is:

(1) Cancellation
(2) Warnings
(3) Advisories
(4) Watches

Note: An advisory and watch for separate hazardous events should be placed in the same segment, when the geographical area of the two events remain constant.

6.3.5 Format.

Product Format	Description of Entry
WWaaii cccc ddhhmm	*(WMO Heading)*
NPWxxx	*(AWIPS ID)*
URGENT - WEATHER MESSAGE	*(Product Name* or *MND)*
NATIONAL WEATHER SERVICE city state	*(Issuing Office)*
time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
...<Overview headline statement>...	*(Optional)*
.<General non-precipitation weather synopsis>	*(Optional - one to three paragraphs)*
stZ001-005>015-ddhhmm-	(*UGC: **Z** & expiration time)*
zone-zone-zone-	*(Zone Names)*
INCLUDING THE CITIES OF city...city...city.	*(City Names - Optional)*
time am/pm time_zone day mon dd yyyy	*(Issuance time/date)*
...ADVISORY HEADLINE...	
<Descriptive text> {Includes the following information: 1. NWS attribution line (*Optional after initial issuance*) 2. Why advisory was issued (non-precipitation weather element(s) prompting the advisory). 3. Detailed wind speed amounts or Heat Index values, etc. (e.g., Northwest winds 25 to 35 mph, heat indices around 105). 4. Timing of the event (beginning, ending, time of heaviest precipitation or worst conditions, duration). 5. Potential impact, call to action statements}	*(Two to three paragraphs)*
$$	*(UGC Delimiter)*
Name/Initials/Forecaster ID	*(Optional after last segment)*

Figure 4. Generic format for a non-precipitation weather advisory.

6.4 Updates, Amendments, and Corrections. WFOs will update advisories at least once every six to eight hours until the event ends or is canceled. The frequent updates will keep our customers and partners informed on the current and short term aspects of the non-precipitation weather event. Update advisories whenever there is a change in timing, areal extent, or expected

conditions. WFOs will issue a NPW to cancel an advisory when the forecaster believes the weather threat has diminished before the valid time expires.

WFOs will issue correction statements for format or grammatical errors as required. To reduce format or grammatical errors, forecasters should proofread the product before transmission.

APPENDIX A - Non-Precipitation Weather Product Examples

Table of Contents: Page

1. Introduction. This section contains guidelines and examples of non-precipitation weather products.

2. Non-Precipitation Weather Outlook. An example of an Excessive Heat Outlook.

WWUS81 KLWX 090800
SPSLWX

EXCESSIVE HEAT OUTLOOK
NATIONAL WEATHER SERVICE BALTIMORE/WASHINGTON
400 AM EDT SUN JUN 9 2002

DCZ001-MDZ002>007-009>011-013-014-016>018-VAZ025>031-036>042-050>057-
WVZ048>053-055-092000-
ALBEMARLE VA-ALLEGANY MD-ANNE ARUNDEL MD-ARLINGTON/FALLS
CHURCH/ALEXANDRIA VA-AUGUSTA VA-BERKELEY WV-CALVERT MD-CARROLL
MD-CHARLES MD- CLARKE VA-CULPEPER VA-DISTRICT OF COLUMBIA DC-
FAIRFAX VA-FAUQUIER VA-FREDERICK VA-FREDERICK MD-GRANT WV- GREENE
VA-HAMPSHIRE WV-HARDY WV-HARFORD MD-HIGHLAND VA-HOWARD MD-
JEFFERSON WV-KING GEORGE VA-LOUDOUN VA-MADISON VA-MINERAL WV-
MONTGOMERY MD-MORGAN WV-NELSON VA- NORTHERN BALTIMORE MD-
ORANGE VA- PAGE VA-PENDLETON WV-PRINCE GEORGES MD-PRINCE
WILLIAM/MANASSAS/MANASSAS PARK VA-RAPPAHANNOCK VA-ROCKINGHAM
VA-SHENANDOAH VA-SOUTHERN BALTIMORE MD-SPOTSYLVANIA VA-ST.
MARYS MD-STAFFORD VA-WARREN VA-WASHINGTON MD-
400 AM EDT SUN JUN 9 2002

...EXCESSIVE HEAT POSSIBLE WEDNESDAY AND THURSDAY WITH HEAT INDICES APPROACHING 105 DEGREES...

HOT WEATHER COULD AFFECT THE MID ATLANTIC REGION DURING THE MIDDLE PART OF THIS WEEK. HIGH PRESSURE ANCHORED OFF THE SOUTHEAST UNITED STATES COAST WILL PUMP A VERY WARM AIR MASS INTO THE AREA THROUGH MID WEEK. TEMPERATURES TODAY WILL REACH THE UPPER 80S TO LOWER 90S. ON WEDNESDAY AND THURSDAY HIGH TEMPERATURES COULD WARM INTO THE UPPER 90S WITH HEAT INDICES NEAR 105 DEGREES.

A DEGREE OF UNCERTAINTY EXISTS WITH THE FORECAST OF HOT WEATHER CONDITIONS. IF THE HIGH PRESSURE SYSTEM IS WEAKER OR STRONGER THAN CURRENTLY INDICATED...THEN TEMPERATURES AND HEAT INDICES COULD BE LOWER OR HIGHER.

STAY TUNED TO NOAA WEATHER RADIO OR YOUR LOCAL MEDIA FOR ADDITIONAL UPDATES AND POSSIBLE WATCHES AND WARNINGS ON THIS DEVELOPING EXCESSIVE HEAT EVENT.

$$

3. Non-Precipitation Weather Watch Examples.

3.1 Freeze Watch. An example of a Freeze Watch, first issuance. NWS attribution line is mandatory.

WWUS74 KMOB 171100
NPWMOB

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE MOBILE AL
500 AM CST SUN NOV 17 2002

...A FREEZE WATCH IS IN EFFECT TONIGHT FOR THE INLAND AREAS OF SOUTHEAST MISSISSIPPI...AS WELL AS FOR PORTIONS OF INTERIOR SOUTHWEST AND SOUTH CENTRAL ALABAMA...

.A COLD AND DRY AIRMASS CONTINUES TO FILTER INTO SOUTH MISSISSIPPI AND ALABAMA. AS HIGH PRESSURE SETTLES JUST SOUTH OF THE REGION TODAY AND TONIGHT...WINDS WILL BECOME LIGHT AND TEMPERATURES WILL FALL INTO THE 30S BY LATE EVENING FOR MANY INLAND AREAS. BY DAYBREAK MONDAY...READINGS IN THE LOWER 30S WILL BE POSSIBLE FOR MANY INLAND AREAS.

ALZ051>060-MSZ067-075-076-172300-
BUTLER-CHOCTAW-CLARKE-CONECUH-COVINGTON-CRENSHAW-ESCAMBIA-
GREENE-MONROE-PERRY-WASHINGTON-WAYNE-WILCOX-
INCLUDING THE CITIES OF...ANDALUSIA...BREWTON...BUTLER...CAMDEN...
CHATOM...EVERGREEN...GREENVILLE...GROVE HILL...LEAKESVILLE...
LUVERNE...MONROEVILLE...NEW AUGUSTA...WAYNESBORO
500 AM CST SUN NOV 17 2002

...A FREEZE WATCH IS IN EFFECT LATE TONIGHT AND MONDAY MORNING...

THE NATIONAL WEATHER SERVICE IN MOBILE HAS ISSUED A FREEZE WATCH. TEMPERATURES LATE TONIGHT AND EARLY MONDAY MORNING ARE EXPECTED TO FALL INTO THE LOWER 30S FOR MANY INLAND AREAS...RESULTING IN THE POTENTIAL OF A LIGHT FREEZE. PRECAUTIONS SHOULD BE TAKEN TODAY TO PROTECT TENDER OUTDOOR PLANTS AND OUTDOOR PETS FROM THE EXPECTED OVERNIGHT COLD TEMPERATURES.

$$

3.2 High Wind Watch. An example of a High Wind Watch, first issuance. NWS attribution line is mandatory.

WWUS45 KSGX 011100
NPWSAN

URGENT-WEATHER MESSAGE
NATIONAL WEATHER SERVICE SAN DIEGO CA
400 AM PST FRI MAR 1 2002

...HIGH WIND WATCH FOR THE INLAND EMPIRE OF EXTREME SOUTHWESTERN CALIFORNIA SATURDAY THROUGH NOON SUNDAY...

.A STRONG OFFSHORE FLOW WILL DEVELOP TONIGHT AND STRENGTHEN SATURDAY. IT WILL CONTINUE INTO SUNDAY MORNING. LOCAL STRONG GUSTY NORTHEAST WINDS ARE EXPECTED THROUGH AND BELOW MOUNTAIN CANYONS AND PASSES DURING THIS PERIOD.

CAZ048-049-020000-
SAN BERNARDINO AND RIVERSIDE COUNTY VALLEYS-THE INLAND EMPIRE-
400 AM PST FRI MAR 1 2002

...HIGH WIND WATCH IN EFFECT FROM SATURDAY MORNING THROUGH SUNDAY MORNING...

THE NATIONAL WEATHER SERVICE IN SAN DIEGO HAS ISSUED A HIGH WIND WATCH. LOCAL NORTHEAST WINDS UP TO 40 MPH WITH GUSTS TO OVER 60 MPH ARE POSSIBLE SATURDAY THROUGH SUNDAY MORNING... BEFORE DECREASING SUNDAY AFTERNOON.

A HIGH WIND WATCH MEANS CONDITIONS ARE FAVORABLE FOR A HAZARDOUS HIGH WIND EVENT IN AND CLOSE TO THE WATCH AREA.

THE WINDS COULD MAKE DRIVING DIFFICULT FOR MOTORISTS WITH HIGH PROFILE VEHICLES OR TRAILERS.

$$

4. Non-Precipitation Weather Warning Examples.

4.1 Freeze Warning. An example of a Freeze Warning, first issuance. NWS attribution line is mandatory.

WWUS74 KBMX 170957
NPWBHM

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE BIRMINGHAM AL
400 AM CST SUN NOV 17 2002

...FREEZE WARNING TONIGHT FOR ALL OF NORTH AND CENTRAL ALABAMA...

.A TASTE OF WINTER HAS COME TO ALABAMA. A STRONG COLD FRONT BROUGHT THE FIRST REAL ARCTIC AIRMASS OF THE SEASON INTO ALABAMA. AS THE COLD AIR CONTINUES TO SETTLE OVER THE STATE...CLEARING SKIES AND DIMINISHING WINDS TONIGHT WILL SET THE STAGE FOR THE COLDEST NIGHT OF THE SEASON. LOWS TONIGHT WILL FALL INTO THE MIDDLE AND UPPER 20S ACROSS NORTH ALABAMA AND NEAR 30 ACROSS CENTRAL ALABAMA.

ALZ001>029-034-172200-
BIBB-BLOUNT-CALHOUN-CHEROKEE-CLAY-CLEBURNE-COLBERT-CULLMAN-
DEKALB-ETOWAH-FAYETTE-FRANKLIN-JACKSON-JEFFERSON-LAMAR-
LAUDERDALE-LAWRENCE-LIMESTONE-MADISON-MARION-MARSHALL-MORGAN-
PICKENS-RANDOLPH-SHELBY-ST CLAIR-TALLADEGA-TUSCALOOSA- WALKER-
WINSTON-
400 AM CST SUN NOV 17 2002

...FREEZE WARNING IN EFFECT FROM 100 AM TO 1000 AM CST MONDAY...

THE NATIONAL WEATHER SERVICE IN BIRMINGHAM HAS ISSUED A FREEZE WARNING. CLEAR SKIES AND DIMINISHING WINDS ARE EXPECTED TONIGHT. THIS WILL ALLOW TEMPERATURES TO FALL BELOW FREEZING...PRODUCING THE FIRST WIDESPREAD FREEZE. LOWS TONIGHT WILL FALL INTO THE MIDDLE AND UPPER 20S ACROSS THE AREA.

THOSE WITH COLD SENSITIVE PLANTS OR ANIMALS...OR OTHER CONCERNS RELATED TO FREEZING TEMPERATURES...SHOULD BEGIN PREPARATIONS NOW FOR THIS FREEZE. IF YOU HAVE NOT ALREADY DONE SO...NOW IS THE TIME TO MAKE SURE HEATERS ARE IN PROPER WORKING ORDER.

$$

ALZ030>033-035>050-172200-

AUTAUGA-BARBOUR-BULLOCK-CHAMBERS-CHILTON-COOSA-DALLAS-ELMORE-
GREENE-HALE-LEE-LOWNDES-MACON-MARENGO-MONTGOMERY-PERRY-PIKE-
RUSSELL-SUMTER-TALLAPOOSA-
400 AM CST SUN NOV 17 2002

...FREEZE WARNING IN EFFECT FROM 300 AM TO 900 AM CST MONDAY...

THE NATIONAL WEATHER SERVICE IN BIRMINGHAM HAS ISSUED A FREEZE WARNING. CLEAR SKIES AND DIMINISHING WINDS ARE EXPECTED TONIGHT. THIS WILL ALLOW TEMPERATURES TO FALL BELOW FREEZING...PRODUCING THE FIRST WIDESPREAD FREEZE. LOWS TONIGHT WILL FALL TO NEAR 30 ACROSS THE AREA.

THOSE WITH COLD SENSITIVE PLANTS OR ANIMALS...OR OTHER CONCERNS RELATED TO FREEZING TEMPERATURES...SHOULD BEGIN PREPARATIONS NOW FOR THIS FREEZE. IF YOU HAVE NOT ALREADY DONE SO...NOW IS THE TIME TO MAKE SURE HEATERS ARE IN PROPER WORKING ORDER.

$$

4.2 High Wind Warning. An example of an updated High Wind Warning, second issuance. This example includes the optional NWS attribution line.

WWUS74 KTSA 070309
NPWTUL

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE TULSA OK
1009 PM CDT FRI APR 6 2001

OKZ054>056-059>061-064>066-071000-
CREEK OK-NOWATA OK-OKFUSKEE OK-OKMULGEE OK-OSAGE OK-PAWNEE
OK-ROGERS OK-TULSA OK-WASHINGTON OK-
INCLUDING THE CITIES OF...NOWATA...CLAREMORE...OKEMAH...OKMULGEE...
PAWHUSKA...TULSA...SAND SPRINGS...BROKEN ARROW...BARTLESVILLE...
PAWNEE AND BRISTOW
1009 PM CDT FRI APR 6 2001

...HIGH WIND WARNING IN EFFECT UNTIL 700 AM CDT SATURDAY MORNING...

THE NATIONAL WEATHER SERVICE IN TULSA HAS CONTINUED THE HIGH WIND WARNING. GUSTY SOUTH TO SOUTHWEST WINDS OF 50 TO 60 MPH WILL CONTINUE ACROSS THE WARNED AREA. WINDS WILL BE STRONGEST WITH THE APPROACH OF A LINE OF WEAKENING SHOWERS NEARING WESTERN OSAGE AND PAWNEE COUNTIES AT 1000 PM.

MOTORISTS SHOULD EXERCISE CAUTION WHILE DRIVING TODAY. BE ALERT TO SUDDEN GUSTS OF WIND WHICH MAY CAUSE YOU TO LOSE CONTROL OF YOUR VEHICLE. EXTRA ATTENTION SHOULD BE GIVEN TO CROSS WINDS WHEN DRIVING ON EAST-WEST ROADS...AND ON BRIDGES AND OVERPASSES.

TAKE ACTION TO SECURE TRASH CANS...LAWN FURNITURE...AND OTHER LOOSE OUTDOOR OBJECTS. THE HIGH WINDS MAY TOPPLE TREES...DOWN POWER LINES AND DAMAGE SOME STRUCTURES.

STAY TUNED TO NOAA WEATHER RADIO...COMMERCIAL RADIO OR TELEVISION FOR THE LATEST INFORMATION CONCERNING THIS HIGH WIND EVENT. ADDITIONAL WEATHER INFORMATION CAN ALSO BE OBTAINED ON OUR WEB SITE AT... WWW.SRH.NOAA.GOV/TULSA.

$$

5. Non-Precipitation Weather Advisory Examples.

5.1 Blowing Dust Advisory. An example of a Blowing Dust Advisory, first issuance. The NWS attribution line is mandatory.

WWUS76 KPDT 080647
NPWPDT

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE PENDLETON OR
1037 PM PST THU NOV 7 2002

ORZ045-081200-
FOOTHILLS OF THE BLUE MOUNTAINS OR-
INCLUDING THE CITIES OF...PENDLETON...MILTON-FREEWATER...
HEPPNER AND CONDON
1047 PM PST THU NOV 7 2002

...BLOWING DUST ADVISORY IN EFFECT UNTIL 500 AM PST FRIDAY...

THE NATIONAL WEATHER SERVICE IN PENDLETON HAS ISSUED A BLOWING DUST ADVISORY. SOUTHERLY WINDS OF 20 TO 30 MPH WITH HIGHER GUSTS IS PRODUCING BLOWING DUST IN THE FOOTHILLS OF THE BLUE MOUNTAINS... REDUCING VISIBILITY TO LESS THAN 1 MILE.

MOTORISTS ARE URGED TO EXERCISE EXTREME CAUTION ON AREA HIGHWAYS. THE BLOWING DUST WILL SUBSIDE LATE TONIGHT AS A COLD FRONT BRINGS RAIN INTO THE FOOTHILLS.

$$

POLAN

5.2 Dense Fog Advisory. An example of a Dense Fog Advisory, first issuance. NWS attribution line is mandatory.

WWUS74 KLCH 132115
NPWLCH

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE LAKE CHARLES LA
315 PM CST TUE FEB 13 2001

...DENSE FOG EXPECTED TONIGHT...

.A LONG FETCH OF WARM AND MOIST SOUTHERLY WINDS FROM THE CENTRAL GULF OF MEXICO WILL MOVE OVER COOL NEAR SHORE WATERS...PRODUCING DENSE SEA FOG NEAR THE COAST LATE THIS AFTERNOON. THE DENSE FOG WILL SPREAD INLAND THIS EVENING...EVENTUALLY REACHING INTERIOR SOUTHEAST TEXAS AND CENTRAL LOUISIANA BEFORE MIDNIGHT.

LAZ027>033-041>045-051>055-TXZ180>182-201-215-216-140300-
ACADIA-ALLEN-AVOYELLES-BEAUREGARD-CALCASIEU-CAMERON-EVANGELINE
-
HARDIN-IBERIA-JASPER-JEFFERSON-JEFFERSON DAVIS- LAFAYETTE-LOWER ST MARTIN-NEWTON-ORANGE-RAPIDES-ST LANDRY-ST MARY-TYLER-UPPER ST MARTIN-VERMILION-VERNON-
315 PM CST TUE FEB 13 2001

...DENSE FOG ADVISORY IN EFFECT FROM 11 PM THIS EVENING THROUGH 1000 AM CST WEDNESDAY...

THE NATIONAL WEATHER SERVICE IN LAKE CHARLES HAS ISSUED A DENSE FOG ADVISORY. DENSE FOG WILL DEVELOP AFTER 10 PM THIS EVENING...REDUCING VISIBILITIES TO NEAR ZERO. THE FOG WILL DISSIPATE BY 11 AM WEDNESDAY MORNING.

MOTORISTS SHOULD DRIVE WITH EXTREME CAUTION AND ALLOW ADDITIONAL TRAVEL TIME. USE LOW BEAM HEADLIGHTS AND REDUCE DRIVING SPEEDS.

$$

SWEENEY

5.3 Lake Wind Advisory. An example of a Lake Wind Advisory, second issuance. This example does not include the optional NWS attribution line for product updates.

WWUS45 KMSO 282145
NPWMSO

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE MISSOULA MT
400 PM MDT MON APR 28 2003

MTZ001-003-290400-
KOOTENAI/CABINET REGION-FLATHEAD/MISSION VALLEYS-
INCLUDING...KALISPELL...POLSON...ST. IGNATIUS...LIBBY...EUREKA

...LAKE WIND ADVISORY IN EFFECT UNTIL 1100 PM MDT THIS EVENING...

STRONG NORTH TO NORTHEAST WINDS OF 25 MPH WITH GUSTS TO 35 MPH OR GREATER WILL CONTINUE OVER NORTHWEST MONTANA LAKES THROUGH THIS EVENING.

BOATERS WILL ENCOUNTER ROUGH CONDITIONS ON LAKES DURING THIS PERIOD. LAKES OF SPECIAL CONCERN FOR THESE CONDITIONS ARE FLATHEAD LAKE AND LAKE KOOCANUSA. WINDS WILL SLOWLY DIMINISH OVERNIGHT TONIGHT.

$$

WRIGHT

5.4 Wind Advisory. An example of a Wind Advisory, first issuance. NWS attribution line is mandatory.

WWUS74 KFWD 040946
NPWFTW

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE FORT WORTH TX
446 AM CDT SUN MAY 4 2003

...WIND ADVISORY FOR ALL OF NORTH TEXAS THROUGH 800 PM THIS EVENING...

.A STRONG PRESSURE ACROSS THE SOUTHER PLAINS WILL RESULT
IN SOUTHERLY WINDS OF 20 TO 30 MPH AND HIGHER GUSTS TO 35 MPH ACROSS
NORTH TEXAS BEGINNING THIS MORNING AND CONTINUING UNTIL 800 PM THIS
EVENING.

TXZ091>095-100>107-115>123-129>135-141>148-156>162-174-175-042100-
ANDERSON-BELL-BOSQUE-COLLIN-COMANCHE-COOKE-CORYELL-DALLAS-
DELTA-DENTON-EASTLAND-ELLIS-ERATH-FALLS-FANNIN-FREESTONE-GRAYSON-
HAMILTON-HENDERSON-HILL-HOOD-HOPKINS-HUNT-JACK-JOHNSON-KAUFMAN-
LAMAR-LAMPASAS-LEON-LIMESTONE-MCLENNAN-MILAM-MILLS-MONTAGUE-N
AVARRO-PALO PINTO- PARKER-RAINS-ROBERTSON-ROCKWALL-SOMERVELL-
STEPHENS-TARRANT-VAN ZANDT-WISE-YOUNG-

...WIND ADVISORY IN EFFECT UNTIL 800 PM CDT THIS EVENING...

THE NATIONAL WEATHER SERVICE IN FORT WORTH HAS ISSUED A WIND
ADVISORY. STRONG SOUTHERLY WINDS OF 20 TO 30 MPH WITH HIGHER GUSTS
TO 35 MPH ARE EXPECTED THROUGHOUT NORTH TEXAS THIS MORNING
THROUGH 800 PM THIS EVENING. THIS ADVISORY MAY BE EXTENDED INTO
TONIGHT IF AREA WINDS ARE EXPECTED TO REMAIN STRONG MOST OF THE
NIGHT.

A WIND ADVISORY IS ISSUED WHEN SUSTAINED WINDS ARE FORECAST TO BE 20
TO 30 MPH. WINDS OF THESE MAGNITUDES MAY CAUSE MINOR PROPERTY
DAMAGE WITHOUT EXTRA PRECAUTIONS. MOTORISTS IN HIGH PROFILE
VEHICLES SHOULD USE CAUTION DRIVING ON WEST TO EAST ROADS.

$$

6. Cancellation Product Examples.

6.1 Canceled Wind Advisory. An example of a canceled Wind Advisory.

WWUS74 KCRP 161946
NPWCRP

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE CORPUS CHRISTI TX
245 PM CDT FRI MAY 16 2003

TXZ231>234-241>244-246-247-162030-
BEE-CALHOUN-GOLIAD-JIM WELLS-KLEBERG-LIVE OAK-NUECES-REFUGIO-
SAN PATRICIO-VICTORIA-
INCLUDING THE CITIES OF...VICTORIA...THREE RIVERS...SKIDMORE...
SINTON...SEADRIFT...ROBSTOWN...REFUGIO...PORTLAND...PORT OCONNOR...
PORT LAVACA...PORT ARANSAS...MATHIS...KINGSVILLE...INGLESIDE...
GOLIAD...GEORGE WEST...CORPUS CHRISTI...BEEVILLE...
ARANSAS PASS AND ALICE
245 PM CDT FRI MAY 16 2003

...THE WIND ADVISORY HAS BEEN CANCELED...

MAXIMUM WIND SPEEDS OVER THE COASTAL BEND HAVE DECREASED TO 15 TO 25 MPH. WIND GUSTS TO 30 MPH MAY OCCUR OVER PORTIONS OF THE COASTAL BEND THROUGH THE EARLY EVENING HOURS. SINCE THESE WIND CONDITIONS ARE BELOW WIND ADVISORY CRITERION...THE WIND ADVISORY HAS BEEN CANCELED.

$$

WC

6.2 Canceled Dense Fog Advisory. An example of a canceled Dense Fog Advisory.

WWUS74 KEWX 051301
NPWSAT

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE AUSTIN/SAN ANTONIO TX
700 AM CST SAT APR 5 2003

TXZ173-191-192-204>208-051324-
BEXAR-CALDWELL-COMAL-GUADALUPE-HAYS-MEDINA-TRAVIS-WILLIAMSON-

...DENSE FOG ADVISORY IS CANCELED...

VISIBILITIES EARLY THIS MORNING HAVE IMPROVED ABOVE DENSE FOG ADVISORY CRITERIA AND ARE NOT EXPECTED TO RETURN AS DAYTIME MIXING OF DRIER AIR FROM ALOFT ENSUES. THEREFORE THE DENSE FOG ADVISORY ISSUED EARLIER THIS MORNING HAS BEEN CANCELED.

$$

APPENDIX B - Non-Precipitation Weather Definitions

Table of Contents: Page

1. Introduction. This section contains definitions of non-precipitation weather elements used in non-precipitation weather products.

2. Hazardous Non-Precipitation Weather. A non-precipitation weather event that endangers life or property, provides an impediment to commerce, or if proper precaution is not taken, can become life threatening.

3. Hazardous Non-Precipitation Weather Phenomena Definitions.

3.1 Excessive Heat. Excessive heat results from a combination of high temperatures (significantly above normal) and high humidities. At certain levels, the human body cannot maintain proper internal temperatures and may experience heat stroke. The "Heat Index" (HI) (Figure B-1) is a measure of the effect of the combined elements on the body.

Relative Humidity (%)

Air Temperature (°F)	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
130	131																		
125	123	131	141								**Heat Index Chart**								
120	116	123	130	139	148						**(Apparent Temperature)**								
115	111	115	120	127	135	143	151												
110	105	106	112	117	123	130	137	143	150										
105	100	102	105	109	113	118	123	129	135	142	149								
100	95	97	99	101	104	107	110	115	120	126	132	138	144						
95	90	91	93	94	96	98	101	104	107	110	114	119	124	130	136				
90	85	86	87	88	90	91	93	95	96	98	100	102	106	109	113	117	122		
85	80	81	82	83	84	85	86	87	88	89	90	91	93	95	97	99	102	105	106
80	75	76	77	77	78	79	79	80	81	81	82	83	85	86	86	87	88	89	91
75	70	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79	80
70	65	65	66	66	67	67	68	68	69	69	70	70	70	70	71	71	71	71	72

Figure B-1. Heat Index Chart.

3.1.1 Heat Index Calculation. The computation used for the heat index is a refinement of a result obtained by multiple regression analysis carried out by Lans P. Rothfusz and described in a 1990 National Weather Service (NWS) Technical Attachment (SR 90-23). The regression equation of Rothfusz is:

$$HI = -42.379 + 2.04901523*T + 10.14333127*RH - .22475541*T*RH - .00683783*T^2 - .05481717*RH^2 + .00122874*T^2*RH + .00085282*T*RH^2 - .00000199*T^2*RH^2$$

where, T is temperature in degrees Fahrenheit
RH is relative humidity in percent.
HI is the heat index expressed as an apparent temperature in degrees Fahrenheit.

3.1.1.1 Heat Index Calculation Adjustment for Low Humidity. If the RH is less than 13% and the temperature is between 80 and 112 degrees F, then the following adjustment is **subtracted** from HI:

$$ADJUSTMENT = [(13-RH)/4]*SQRT\{[17-ABS(T-95.)]/17\}$$

where, ABS and SQRT are the absolute value and square root functions, respectively.

3.1.1.2 Heat Index Calculation Adjustment for High Humidity and mild Temperatures. If the RH is greater than 85% and the temperature is between 80 and 87 degrees F, then the following adjustment is **added** to HI:

$$ADJUSTMENT = [(RH-85)/10] * [(87-T)/5]$$

3.2 Freeze/Frost Terms.

3.2.1 Freeze. A freeze occurs when the surface air temperature is expected to be 32°F or below over a widespread area for a climatologically significant period of time (greater than one hour). Use of the term is usually restricted to advective situations or to occasions when wind or other conditions prevent frost. Adjectives, such as "killing," "severe," or "hard," should be used when appropriate. "Killing" may be used during the growing season when the temperature is expected to be low enough for a sufficient duration to kill all but the hardiest herbaceous crops.

3.2.2 Frost. Frost describes the formation of thin ice crystals on the ground or other surfaces in the form of scales, needles, feathers, or fans. Frost develops under conditions similar to dew, except the temperatures of the Earth's surface and earthbound objects falls below 32°F. As with the term "freeze," this condition is primarily significant during the growing season. If a frost period is sufficiently severe to end the growing season or delay its beginning, it is commonly referred to as a "killing frost." Because frost is primarily an event that occurs as the result of radiational cooling, it frequently occurs with a thermometer level temperature in the mid-30s.

3.3 High Winds. High winds exclude those directly associated with severe local storms, hurricanes, and winter storms and require a warning when the following occur:

a. sustained wind speeds of 40 mph or greater lasting for 1 hour or longer, or
b. winds of 58 mph or greater for any duration (or otherwise locally defined).

An advisory is appropriate for sustained winds of 31 mph or greater.

The threshold for warnings and advisories should be increased at higher elevations because of the lower air density and subsequent reduction in damage from less force. The regions may adjust these values to account for local climatology and other considerations.

3.3.1 Channeled High Winds. In mountainous areas or in cities with tall buildings, air may be channeled through constricted passages producing high winds. Santa Ana winds and winds through passes from the cold Alaskan interior to the sea are examples of these winds. Channeled high winds are local in nature but can be extremely strong. These winds generally occur in well-defined areas.

3.3.2 Chinook or Foehn Wind. These are warm, dry winds that occur in the lee of high mountain ranges. It is a fairly common wintertime phenomena in the mountainous west and in parts of Alaska. These winds develop in well-defined areas and can be quite strong.

3.3.3 Gradient High Winds. These high winds usually cover a large area and are due to synoptic-scale, extra-tropical low pressure systems.

3.3.4 Mesoscale High Winds. These high winds usually follow the passage of organized convective systems and are associated with wake depressions or strong mesohighs. These winds are separated from the main convection where it would be awkward to cover them using convective warnings as defined in Instruction 10-511.

3.3.5 Trade Winds. The wind system, occupying most of the Tropics, that blows from the subtropical highs toward the equatorial trough.

3.3.6 Tropical Cyclone Associated High Winds. High winds can occur a few hundred miles or so inland from the coast of a landfalling tropical cyclone. Areas near the coast are covered with hurricane or tropical storm warnings. However, hurricane and tropical storm warnings are not appropriate for inland areas since they are perceived to be associated with a marine environment and include storm surge dangers. Therefore, tropical cyclone produced winds over inland areas are addressed by procedures with this instruction.

3.4 Obstructions to Visibility.

3.4.1 Blowing Dust or Sand. Strong winds over dry ground, that has little or no vegetation, can

lift particles of dust or sand into the air. These airborne particles can reduce visibility, cause respiratory problems, and have an abrasive affect on machinery. A concentration reducing the visibility to 1/4 mile or less poses hazards for travelers.

3.4.2 Fog. Fog is water droplets suspended in the air at the Earth's surface. Fog is often hazardous when the visibility is reduced to 1/4 mile or less.

3.4.3 Freezing Fog. A fog which freezes upon contact with exposed objects and form a coating of rime and/or glaze.

3.4.4 Smoke. Smoke in various concentrations can cause significant problems for people with respiratory ailments. It becomes a more universal hazard requiring an NWS response when visibilities are reduced to 1/4 mile or less.

3.4.5 Volcanic Ash. A volcanic eruption can send an ash plume into the atmosphere reducing visibility at the ground and in the air. The chemical composition and abrasive characteristics of the particles varies widely and can seriously affect people and machinery on the ground and aircraft. There is no national minimum threshold for NWS action for the public.